



DAVIDSON FELLOWSHIP

Margaret A. Davidson Graduate Fellowship Newsletter

This issue of the newsletter features the fellows conducting research at the Southeast and Caribbean [national estuarine research reserves](#), and highlights a few resources and tips for writing a federal grant proposal and planning a collaborative research project.

Fellow Highlights



Ashley Reaume, University of Central Florida and Guana Tolomato Matanzas, Florida

Project title: Using Plankton DNA to Assess the Impact of Water Quality on the Base of the Estuarine Food Web

Importance: Plankton communities make up the base of the food chain in marine communities and are important indicators of ecosystem health. Ashley's research will create an efficient and cost-effective "bioassessment toolkit" to help resource managers evaluate the impact of water quality on plankton communities, specifically, and on marine communities, in general.

"I am interested in this research topic because plankton are so important to the food chain and the health of marine ecosystems. I want to make it easier for resource managers to monitor changes in plankton communities."

Jessica Tipton Black, Clemson University and Jobos Bay Reserve, Puerto Rico

Project title: Understanding the Health of Mangrove and Seagrass Habitats in Puerto Rico

Importance: Coastal habitats, like seagrass beds and mangrove forests, are vitally important to the wellbeing of both human and ecological communities in Puerto Rico.



Jessica's research will provide a cost-effective approach to understanding how coastal habitats are being affected by humans, and where to focus future management actions.

"My passion for applied research stems from my desire to contribute to measurable positive change in coastal resource protection. I would like to ensure that my research is used to benefit ecological and human communities, not just published in a scientific journal never to be utilized by decision-makers."



Sydney Williams, University of Florida and Sapelo Island Reserve, Georgia

Project title: How are Filter-feeders Affected by Water Quality?

Importance: A deeper understanding of the reciprocal exchanges between water quality and the regulating services of suspension-feeders achieved through this work has the capacity to inform future restoration efforts. It is important to consider how filtration services of bivalves vary in low oxygen conditions to guide management toward innovative, nature-based solutions to promote ecosystem health in coastal communities faced with cultural eutrophication, harmful algal blooms, and other pervasive threats.

"I am interested in this research topic because of its potential to restore estuarine water quality."



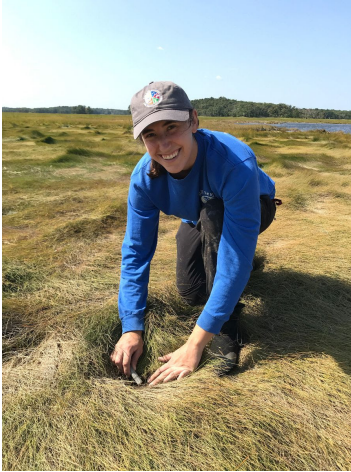
Tyler Cribbs, Clemson University and ACE Basin Reserve, South Carolina

Project title: Understanding Visitor Use and Impacts at ACE Basin National Estuarine Research Reserve

Importance: The overall purpose of this project is to characterize visitor use and understand its impact on key natural resources at the ACE Basin National Estuarine Research Reserve. This research is not only important for addressing current management questions, but also to protect the reserve's natural resources in the future.

"I am grateful for the Margaret A. Davidson Fellowship"

because it gives me the opportunity to take all of my collective knowledge in both ecology and visitor use management research and apply it in a way that I haven't yet had the chance to."



Johanna L'Heureux, Northeastern University and North Inlet-Winyah Bay Reserve, South Carolina

Project title: Understanding Effects of Human-Induced Environmental Changes on Salt Marsh Carbon Dynamics

Importance: Johanna's research will help clarify the effects of sea level rise and fertilizer addition on salt marsh carbon dynamics, in turn improving our ability to predict the resilience of salt marshes in the face of climate change.

"My passion for applied research stems from my belief that we must be good stewards of the earth, and my desire to translate my research results to the broader community so that we can be better informed on how to be good stewards. I am also excited about the interdisciplinary nature of applied research and the opportunities for community engagement that it presents."



Marae Lindquist, University of North Carolina-Wilmington and North Carolina Reserve, North Carolina

Project title: Predicting Marsh Bird Population Response to Sea Level Rise

Importance: Marae's research strives to provide essential information for the management and conservation of vulnerable marsh birds in the face of sea level rise.

"I am grateful for the Davidson Fellowship because it is providing me with the opportunity to complete another two field seasons of important research for the conservation of at-risk species and gain invaluable mentorship and networking opportunities I would not be afforded without this fellowship."

Application Tips and Resources

Call your Reserve! – NOAA hosted an informational webinar for potential applicants interested in

learning more about the Margaret A. Davidson Graduate Fellowship. Find the recording of this webinar on our [website](#).

"We strongly encourage you to reach out to the host reserve to discuss the feasibility of your project idea. This helps to ensure that your project appropriately addresses one or more of the needs, as well as to identify resources at the reserve that may support your project implementation. This is an important way to start your relationship with the reserve. We want you to reach out to us and are ready to have these conversations with you."

– Rebecca Ellin, Manager at the North Carolina National Estuarine Research Reserve

Grant Writing for Collaborative Research – The NOAA Office for Coastal Management offers a variety of resources on our [website](#) to help applicants develop competitive grant proposals. Additionally, the National Estuarine Research Reserve Science Collaborative program maintains a list of [tools and products](#) to help applicants plan and implement collaborative research projects.

About the Program

This fellowship program honors the legacy of Margaret A. Davidson, a visionary and pioneer in the world of coastal resource management. The Margaret A. Davidson Graduate Fellowship emphasizes professional development, mentoring, and innovation, and offers students admitted to or enrolled in a master's or doctoral program the opportunity to conduct research within one of the 29 [national estuarine research reserves](#). For more information, and to see a list of the full 2020 to 2022 cohort, visit coast.noaa.gov/nerrs/research/davidson-fellowship.html

Program Timeline

Call for applications for the 2022 to 2024 cohort open now! [Apply here](#).

December 10, 2021 – Applications due for the 2022 to 2024 cohort

August 1, 2022 – Start date for the 2022 to 2024 cohort



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